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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/471,287	12/23/1999	MAKOTO MIYAGI	0557-4877-2	7229
22850	7590	09/13/2005	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			BRINICH, STEPHEN M	
			ART UNIT	PAPER NUMBER
			2624	

DATE MAILED: 09/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	09/471,287		MIYAGI, MAKOTO	
	<b>Examiner</b>		<b>Art Unit</b>	
	Stephen M. Brinich		2624	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2005.  
2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 3,7,9-12,15,19,21-24 and 27-34 is/are allowed.  
6) ☒ Claim(s) 1,2,4-6,8,13,14,16-18,20,25 and 26 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \*    c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1-2, 4-6, 8, 13-14, 16-18, 20, & 25-26 are rejected under 35 U.S.C. 102(a) as being anticipated by Applicant's admitted Prior Art.

Re claims 1-2, 4-6, 8, 13-14, 16-18, 20, & 25-26, Applicant's admitted Prior Art (Figure 8C) discloses a halftone screen in which the halftone dot cells are formed by cutting off one facing corner of each of two mutually facing square halftone threshold matrices (and leaving the remaining elements of the matrices intact) to form non-regular hexagonal threshold matrices and combining sets of the resulting hexagonal matrices into a halftone cell (identified by the label of Figure 8C as a single halftone cell -- HEXAGONAL CELL [singular] ON SQUARE GRID -- encompassing the seven hexagonal matrices shown in Figure 8C). Note the correspondence of Figure 8C (Applicant's admitted Prior Art) and Figure 1 (the invention as described in claims 1, 5, 13, 17, 25, & 26).

***Allowable Subject Matter***

3. Claims 3, 7, 9-12, 15, 19, 21-24, & 27-34 are allowed.

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4. The following is a statement of reasons for the indication of allowable subject matter:

Re claims 3, 7, 15, & 19, the art of record does not teach or suggest the recited threshold value arrangements (set threshold values for each of the hexagonal cells constructing a single halftone cell are not the same) in conjunction with a halftone matrix formed by cutting off facing corners of square halftone threshold matrices to form non-regular hexagonal threshold matrices and combining sets of the resulting hexagonal matrices into a halftone cell.

Re claims 9, 21, 27, 29, 31, & 33 (and dependent claims 10-12, 22-24, 28, 30, 32, & 34), the art of record does not teach or suggest the recited division of hexagonal cells that are combined into a halftone matrix formed by cutting off two facing corners of square halftone threshold matrices to form non-regular hexagonal threshold matrices and combining sets of the resulting hexagonal matrices into a halftone cell.

***Response to Arguments***

5. Applicant's arguments, see Response filed 6/20/05, with respect to the rejection of claims 2, 4, 6, 8, 14, 16, 18, & 20 under 35 USC §112 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon

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further consideration, a new ground(s) of rejection of claims 2, 4, 6, 8, 14, 16, 18, & 20 is made under 35 USC §102.

Specifically, Examiner notes that Applicant's amendment to independent claims 2, 6, 14, & 18 has excised the element of subject matter previously indicated to be allowable.

6. Applicant's arguments filed 6/20/05 re the rejection of claims 1, 5, 13, 17, & 25-26 have been fully considered but they are not persuasive.

Applicant argues (6/20/05 Response: page 12, line 19 - page 13, line 22) that Applicant's Admitted Prior Art fails to teach or suggest the claimed feature of combining plural non-regular hexagonal cells into a single halftone cell. In particular, Applicant argues that the individual non-regular hexagonal cells of Figure 8C are each a halftone cell.

However, as noted above, the label of Figure 8C (HEXAGONAL CELL [singular] ON SQUARE GRID) would indicate to one of ordinary skill in the art that the set of seven non-regular hexagonal cells depicted in Figure 8C (forming a larger hexagonal pattern) represent a single halftone cell produced by the combination of these seven non-regular hexagonal cells.

#### **Conclusion**

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS**

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**ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning the contents of this communication or earlier communications from the examiner should be directed to Stephen M. Brinich at 571-272-7430.

Any inquiry relating to the status of this application or proceeding or any inquiry of a general nature concerning application processing should be directed to the Tech Center 2600 Customer Service center at 571-272-2600 or to the USPTO Contact Center at 800-786-9199 or 703-308-4357.

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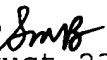
The examiner can normally be reached on weekdays 7:00-4:30, alternate Fridays off.

If attempts to contact the examiner and the Customer Service Center are unsuccessful, supervisor David Moore can be contacted at 571-272-7437.

Faxes pertaining to this application should be directed to the Tech Center 2600 official fax number, which is 571-273-8300 (as of July 15, 2005).

Hand-carried correspondence may be delivered to the Customer Service Window, located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

Stephen M Brinich  
Examiner  
Art Unit 2624

smb   
August 23, 2005



THOMAS D  
~~THOMAS~~ LEE  
PRIMARY EXAMINER